PowerSDR Data Transfer Utility

(Version 5.1.0 -- Revised November 1, 2012)

Introduction

SDRDataTransfer.exe is an advanced utility to transfer data from one ***PowerSDR™*** setup database to another. Certain data in the ***PowerSDR*** setup database should never be transferred to another database. In some cases, the decision as to whether it is safe to transfer the data or not can be determined by which table the data is stored in. However, a couple of the tables have a mixture of data that is safe to transfer and data that is not. Unfortunately, this includes some of the more popular custom settings that are rather tedious to re-enter by hand when moving to a new database. The filter settings are just one example. ***SDRDataTransfer.exe*** decides which tables and which records within each table can be safely transferred based on information stored in a setup database, ***SDRDataTransfer.xml***.

As newer versions of ***PowerSDR*** are released, all that is necessary is to update the ***SDRDataTransfer.xml*** file with the new data. If a new version of ***PowerSDR*** is released with new features, ***SDRDataTransfer.exe*** will still work, but the settings for the new features will not be transferred until an updated version of the ***SDRDataTransfer.xml*** file is installed.

Versions of ***PowerSDR*** up to and including version 1.18.0 used a Microsoft Access database file named ***PowerSDR.mdb***. Starting with version 1.18.1, ***PowerSDR*** uses an XML file named ***database.xml*** to hold the setup data. Versions 2.0.0 through 4.2.5 of ***SDRDataTransfer.exe*** allow you to transfer data between both types of databases, including transferring data from one type of database to another. Starting with version 5.0.0, support for the Microsoft Access database structure has been dropped, If you need to transfer data to or from an Access database, you may still continue to use SDRDataTransfer v4.2.5. However, this version is no longer supported & the setup data will not be updated.

Installation & Setup

Run the installation package file, ***SDRDataTransferSetup.exe***. This will install ***SDRDataTransfer.exe*** and all required supporting files on your computer. The installer will suggest a default location for the program file. You may change the location or leave it at the default, it does not matter. However, the ***SDRDataTransfer.rtf*** file MUST be located in the same directory as the ***SDRDataTransfer.exe*** file. The ***SDRDataTransfer.xml*** file will be located in the application data folder tree.

Copyright © 2011 by RNA Consulting Services, LLC

Program Operation

On startup and every 0.1 sec. while the program is running, ***SDRDataTransfer.exe*** checks to see if ***PowerSDR*** is running. If it is, then a warning message is displayed. You can either shut down ***PowerSDR*** and click on **Retry** or you can click on **Cancel** to terminate ***SDRDataTransfer***.

NOTE: For this feature to work, the name of the file that is running must be ***PowerSDR.exe***. If you have renamed the ***PowerSDR.exe*** file then ***SDRDataTransfer*** will not be able to detect that ***PowerSDR*** is running. In this case, be certain to close any instances of ***PowerSDR*** that may be running before starting ***SDRDataTransfer*** and do not start ***PowerSDR*** until after you have closed ***SDRDataTransfer***.

The first screen to be displayed is a warning screen reminding you to backup your data files before running any program which can modify your files. After you click on the ***Okay*** button, or after approximately 10 seconds, you will see the screen shown in **Figure 1**.

Copyright © 2011 by RNA Consulting Services, LLC

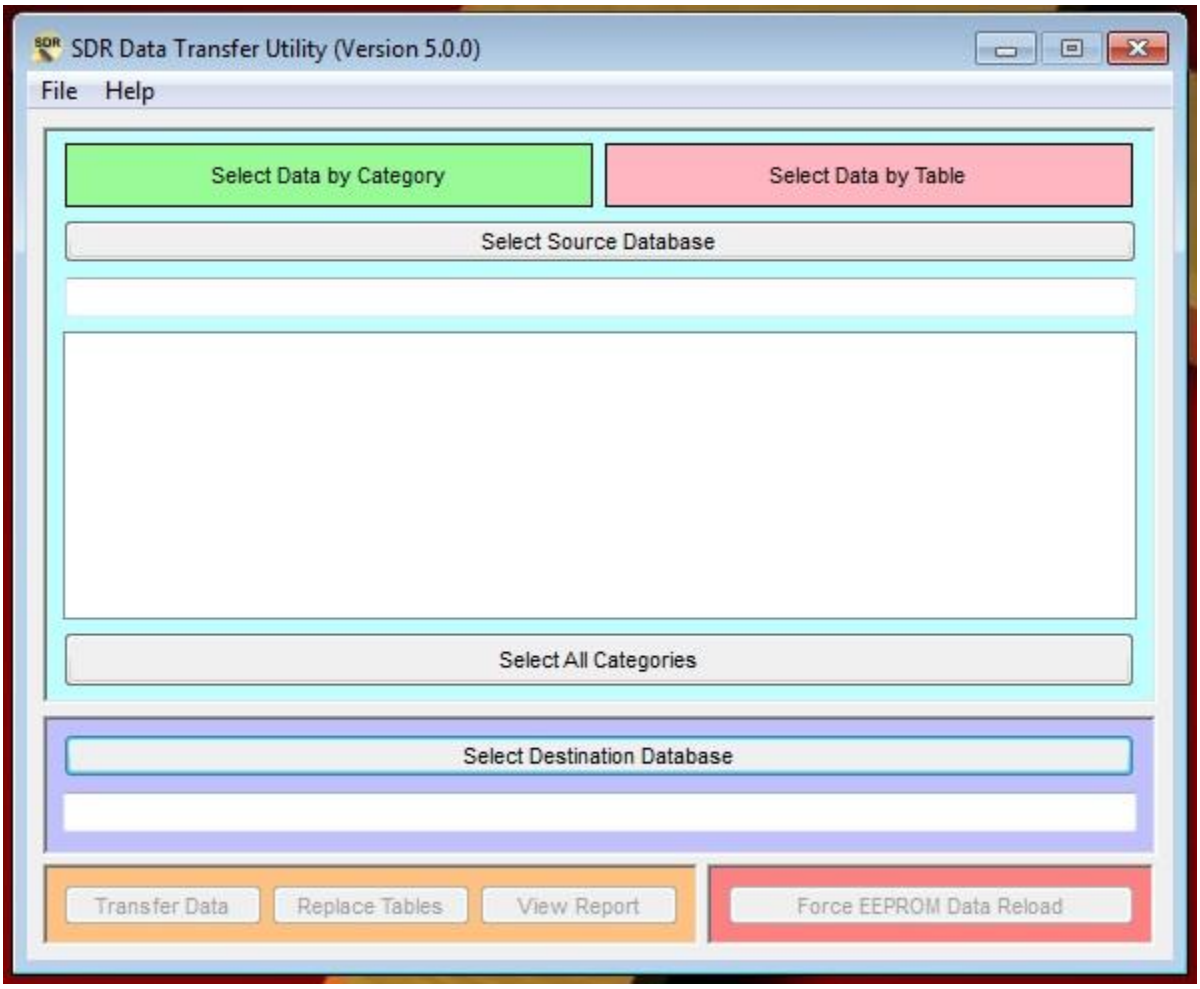

Figure 1 -- Main Screen

Transferring Data

First you must select whether to transfer by category or by table by clicking on "Transfer by Category" or on "Transfer by Table" at the top of the main screen. The mode that is selected will have a green background.

The various settings are divided into several categories. All of the CW settings are in one category, all of the receive filter settings are in another category, etc. Most tables contain only data from a single category, but the "Options" and "State" tables contain a mixture of several different categories.

If you select "Transfer by Category", the program will scan the settings in all tables looking for data in the selected category or categories and transfers those settings regardless of the table they are found in..

Copyright © 2011 by RNA Consulting Services, LLC

If you select "Transfer by Table", the program will transfer the settings in the selected table(s), regardless of category.

Next, you must select the database you wish to transfer settings from, called the Source Database, and the database you wish to transfer settings to, called the "Destination Database".

NOTE: ***PowerSDR*** places the database file in the user's application data directory. This is a hidden folder. In order to be able to navigate to this folder you must open ***Windows Explorer***, click on ***Tools***, then click on ***Folder Options***, and select the ***View*** tab. Finally, select ***Show hidden files and folders***.

Click on the ***Select Source Database*** button and locate & select the database file you wish to copy data from. The initial directory of the file selection dialog box is set to the default location of the database. Alternatively, you can type the full path and filename into the text box.

Click on the ***Select Destination Database*** button and locate & select the database file you wish to copy data to. The initial directory of the file selection dialog box is set to the default location of the database. Alternatively, you can type the full path and filename into the text box.

Select the categories or tables in the source database that you wish to copy to the destination database. You may select as many categories or tables as you wish. To select multiple categories or tables, hold the **CTRL** key down while clicking on the category/table names. To select all categories or tables in the source data base, click on the ***Select All Categories*** button or the ***Select All Tables*** button.

When both files have been selected and one or more categories or tables have been selected, the ***Transfer Data*** button at the bottom of the window will be enabled. The ***Replace Tables*** button will be enabled only if you are transferring by tables.

Left-click on either the ***Transfer Data*** button or the ***Replace Tables*** button to transfer the data.

Right-click on either the ***Transfer Data*** button or the ***Replace Tables*** button to view a report of what data will be transferred.

The ***Transfer Data*** button will cause the program to transfer the data in each category or table that you have selected to the destination database. As the data in each table is transferred, the highlighting will be removed from the table name. The data will be transferred only if it is safe to transfer. If a record already exists in the destination table, its contents will be changed to match the record in the source table. If the record does not already exist, a new record will be added to the destination table. No records are deleted from the destination table.

Copyright © 2011 by RNA Consulting Services, LLC

NOTE: The records in the ***BandText*** table in the database should not be transferred.. The program blocks the ***BandText*** table so that the transfer data function will not work on it. View the report after transferring the data to see what tables were transferred and what were not. You can also view the report before transferring the data by right-clicking on the ***TransferData*** button.

The ***Replace Tables*** button works exactly like the ***Transfer Data*** button except that all data records are deleted from the destination table before transferring the data. This has the effect of completely replacing the destination table with the source table.

NOTE: Certain records in some of the tables in the database must not be deleted. The program blocks those tables so that the replace function will not work on them, and displays a warning message stating which tables will not be replaced. View the report after transferring the data to see what tables were replaced and what were not. You can also view the report before transferring the data by right-clicking on the ***Replace Tables*** button.

Viewing Reports

After the data has been transferred, the ***View Report*** button will be enabled. Click on the ***View Report*** button to see a list of the tables and the number of records transferred. If the data in any table is not transferred, the reason that the data could not be transferred will be listed.

Clicking on ***Save Report*** will allow you to save the report to a text file. Click on the ***Close Report*** button to return to the normal display without saving the report.

FLEX-1500™/FLEX-3000™/FLEX-5000™ EEPROM Re-Load

Clicking on the ***Force EEPROM Data Reload*** button will set a value in the destination database that will cause ***PowerSDR*** to re-read the calibration data from the FLEX-1500, the FLEX-3000, or the FLEX-5000 EEPROM into the database the next time that ***PowerSDR*** is started. You must select a destination database before this button is enabled.

Updating Setup Data

Selecting ***Update Setup Data*** from the ***File*** menu will display a screen showing the date that the currently loaded setup data was last updated. It also displays the latest release version of ***PowerSDR*** and the latest ***SVN*** version of ***PowerSDR*** for which the data is known to be current. This feature requires an active internet connection. Make certain that you are connected to the internet before trying to update the setup data.

Clicking on the ***Update Setup Data from Internet*** button will cause the program to automatically update the setup data from a web site maintained by the program author.

Copyright © 2011 by RNA Consulting Services, LLC

The program will execute the following steps:

- Get the updated setup data from the internet.
- Check the date of the updated data against the current data.
- If the updated data is newer than the current data, ask if you want to update to the new data.
- If the updated data is not newer than the current data, ask if you want to load the data from the internet anyway.
- Make a backup data of the current setup database.
- Replace the data in the setup database with the new data from the internet.
- Display a message notifying you that the update is complete.

Clicking on the ***Return to Main Program*** button will close the update window and return the program to normal operation.

As new features are added to ***PowerSDR***, the setup database used by ***SDRDataTransfer*** may not support the added features. If a new feature required the addition of a new control (button, checkbox, combobox, trackbar, etc.) to one of the PowerSDR screens, then the setting of that control will not be transferred. First, it must be added to the ***SDRDataTransfer*** setup database.

WARNING: Some of the records in the ***SDRDataTransfer*** setup database use special encoding techniques. Therefore, modifying the setup database manually is **NOT** recommended. Attempting to do so may cause data to be transferred that is not safe to transfer. This may possibly result in damage to your radio. The **only** supported methods of updating the setup data is using the built-in facility for automatically updating the database from the internet (preferred) or by replacing the setup database file with a new copy provided by the author on his website. Neither the author nor RNA Consulting Services, LLC, will be liable for any damages, direct or indirect, resulting from an attempt to manually update the data in the **SDRDataTransfer** setup database.

The author will make every attempt to provide updated setup data on his website in a timely manner. Normally, a new setup data file will be available within a day or two after any new released version of ***PowerSDR*** is announced by FlexRadio Systems, Inc.

The current setup data revision date and ***PowerSDR*** versions supported will be posted on the author's website at http://www.qsl.net/k9dur/downloads.htm.

Copyright © 2011 by RNA Consulting Services, LLC

File Menu

Clicking on ***FILE*** on the menu bar will display the menu shown in **Figure 2**.
:

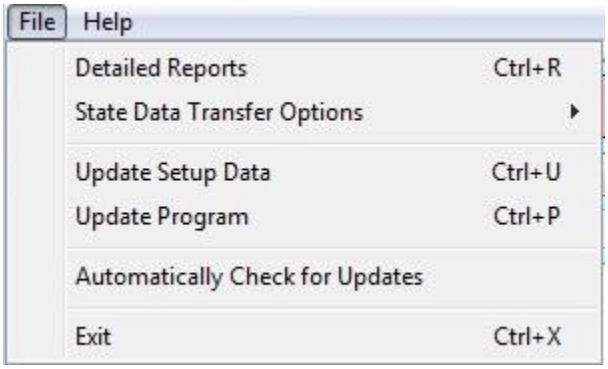

Figure 2 -- File Menu

Clicking on **Detailed Reports** or holding the **CTRL** key down and pressing "**R**" will toggle the report format between the summary report and a detailed report. The summary report only lists the total number of records transferred in each table. This is the default setting when the program is first installed. The detailed report will list the action taken for every record in a table where not all records were transferred.

.

Clicking on **Update Setup Data** or holding the **CTRL** key down and pressing "**U**" will open a window where you can check the internet for updated setup data and automatically install it if you wish.

.

Clicking on **Update Program** or holding the **CTRL** key down and pressing "**P**" will open a window where you can check the internet for a new version of the program and automatically install it if you wish.

.

Clicking on **Automatically Check for Updates** will toggle on or off automatic checking for updated setup data or a new version of the program when the program starts. This option requires an active internet connection and will slow the program start-up process, but will help make sure you always have the latest setup data and version of the software.

.

Clicking on **Exit** or holding the **CTRL** key down and pressing "**X**" will exit the program.

Copyright © 2011 by RNA Consulting Services, LLC

Clicking on **State Data Transfer Options** will display the **State Data Sub-Menu** shown in **Figure 3**.

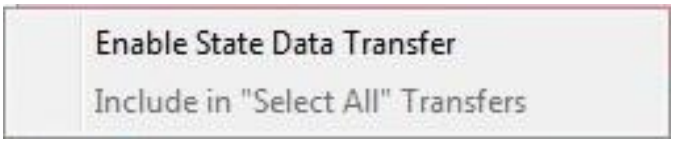

Figure 3 -- State Data Sub-Menu

Settings which change during normal operation of the radio are categorized as "State" data. These settings include things like band, VFO frequency, AF gain, mode, selected filter, etc. Transferring the state data is not particularly useful. Therefore, by default, they are not transferred. However, you can transfer the state data if you wish by changing the options selected on the **State Data Sub-Menu**.

If **Enable State Data Transfer** is not checked, then ***SDRDataTransfer*** will not transfer any state data and you will not be able to select the State data category or the State table for transfer. This is the default setting.

If **Include in "Select All" Transfers** is not checked, then the State data category will not be selected when you click on **Select All Categories** and the State table will not be selected when you click on **Select All Tables**. This is the default setting. This selection cannot be changed until you have checked **Enable State Data Transfer**.

Help Menu

Clicking on ***HELP*** on the menu bar will display the menu shown in **Figure 4**.

Figure 4 -- Help Menu

Clicking on **Help** or holding the **CTRL** key down and pressing "**H**" will display this document.

Clicking on **Donate** or holding the **CTRL** key down and pressing "**D**" will the donation window.

Copyright © 2011 by RNA Consulting Services, LLC

Clicking on **About** or holding the **CTRL** key down and pressing "**A**" will display a window with basic information about the program, including information on the currently loaded setup data. Click anywhere on the window to close it and return to normal operation.

License and Warranty Information

This software may be freely copied by any licensed amateur radio operator for their own personal use. Other than the cost of the distribution media, no fee may be charged for the distribution of this software to any other party or parties.

No commercial use of the software may be made by any party without the express written consent of:

RNA Consulting Services, LLC
Post Office Box 82
West Terre Haute, IN 47885-0082.

The programming techniques used in the development of this software program are proprietary to RNA Consulting Services, LLC. The software may not be reverse engineered or de-compiled for any purpose.

No warranty, expressed or implied, is conveyed for the use of the software or for the installation of the software on any computer.

About the Author

SDRDataTransfer.exe was written by Ray Andrews, K9DUR.

Ray holds an Amateur Extra class license and was first licensed in April 1960. He currently resides in West Terre Haute, IN, and is a retired electronic design engineer and software developer. He operates a small custom software consulting business just to keep him out of mischief between camping trips.

For more information, visit Ray's web pages:

http://k9dur.info

http://www.rnaconsultingservices.com

Copyright © 2011 by RNA Consulting Services, LLC

Revision History

v5.1.0 – Nov 1, 2012 – Blocked transfer data function for BandText table. It should only be replaced.
v5.0.0 – Mar 26, 2012 – Major re-write. Added capability to transfer data between tables with different, but compatible, structures. Dropped support for Microsoft Access databases. Extensive revision of documentation.
v4.2.5 – Sep 29, 2011 – Added "Retry" button to "PowerSDR is running" error message box. Added check for PowerSDR every time the timer fires.
v4.2.4 – Aug 30, 2011 – Fixed bug allowing State data to be selected when not enabled. Fixed typo in state data sub-menu. Revised documentation.
v4.2.3 – Aug 10, 2011 – Fixed bug causing any table where "all records can transfer" to be transferred when transferring by category regardless of the table category.
v4.2.2 – Jul 24, 2011 – Corrected typo in "Select Destination Database" dropdown list box.
v4.2.1 – Jun 14, 2011 – Added "Donate" to Help menu.
v4.2.0 – Jun 14, 2011 – Regenerated code after loss of source code.
v4.1.2 – May 03, 2011 – Fixed bug causing error displaying list of categories before source database is selected.
v4.1.1 – Apr 28, 2011 – Fixed bug preventing table names from being displayed when "Transfer by Table" is selected. Fixed bug preventing source & destination database names being remembered correctly between sessions..
v4.1.0 – Apr 22, 2011 – Added capability to select whether State data can be transferred or not & under what conditions. Also, move some setup data from .xml file to My.Settings.
v4.0.2 – Feb 21, 2011 – Rebuilt installation file.
v4.0.1 – Sep 25, 2010 – Fixed bug in preview reports. Revised documentation to reflect new database naming convention.
v4.0.0 – Sep 23, 2010 – Added capability to transfer data by category.
v3.3.7 – Aug 12, 2010 – Fixed bug in "`OpenSourceDatabase`" `function` preventing transfer of data from a .mdb file.
v3.3.6 – Aug 05, 2010 – Corrected typo in program update notice.
v3.3.5 – Aug 04, 2010 – Removed references to SVN reversion.
v3.3.4 – Apr 30, 2010 – Changed text in database type dropdown lists to include PowerSDR v1.18.6.
v3.3.3 – Apr 08, 2010 – Fixed bug in "Replace Tables" function preventing any tables from being replaced.
v3.3.2 – Apr 07, 2010 – Fixed bug in "Force EEPROM Reload" function preventing RX2 EEPROM from being reloaded. Corrected error in "Select Destination Database" drop-down box text. Corrected setup data to allow start-up warning settings to be transferred.
v3.3.1 – Mar 23, 2010 – Added clickable link to webpage on about form. v3.3.0 – Mar 19, 2010 – Added ability to check internet for a new version of the program. Added ability to automatically check for updates to the setup data or to the program on start-up. Changed database type selection to be based on PowerSDR version rather than on database type.
v3.2.0 – Mar 10, 2010 – Ported program to Visual Basic 2010 Express. Changed target CPU to x86 to force the program to run in 32-bit mode on a 64-bit operating system
v3.1.2 – Feb 21, 2010 – Fixed bug in "CanReplace" function. Added pop-up window when user attempts to replace tables that cannot be replaced.
v3.1.1 – Dec 29, 2009 – Fixed bug causing version number not to be displayed in main window title bar.
v3.1.0 – Dec 26, 2009 – Added donation screen on startup.
v3.0.1 – Oct 29, 2009 – Fixed bug in "Replace Tables" function.

Copyright © 2011 by RNA Consulting Services, LLC

v3.0.0 – Oct 27, 2009 – Revised to store setup data in an .XML file instead of an Access database. Fixed bug when European users transfer BandText table.
v2.1.1 – Oct 17, 2009 – Revised to store SDRDataTransfer.mdb in user's data folder instead of in common program data folder.
v2.1.0 – Oct 16, 2009 – Revised to store SDRDataTransfer.mdb in common program data folder instead of in "Program Files" tree.
v2.0.10 – Jul 23, 2009 – Fixed bug transferring records where table primary key consists of more than one column.
v2.0.9 – Jul 22, 2009 – Added capability of typing in source and destination database file names & revised documentation accordingly. Added data transfer/replace progress bar.
v2.0.8 – Jul 21, 2009 – Fixed bug in setup data update function. Fixed bug in UpdateDataRow function.
v2.0.7 – Jul 17, 2009 – Fixed bug in setup data update function. Corrected error in User Manual & help file.
v2.0.6 – Jul 10, 2009 – Fixed bug in setup data update function & fixed bug in EPROM Data Re-Load function.
v2.0.5 – Jul 06, 2009 – Major rewrite to add XML database support.
v1.5.2 – Sep 09, 2008 – Disable menus while start-up warning is displayed.
v1.5.1 – Sep 06, 2008 – Fixed bug in preview report.
v1.5.0 – Sep 05, 2008 – Added check to see if PowerSDR is running.
v1.4.1 – Sep 04, 2008 – Added 3rd level to revision number.
v1.4.0 – Aug 25, 2008 – Fixed bug in handling non-US format dates.
v1.3.0 – Aug 21, 2008 – Added detailed reports & added screen to automatically update the setup data from the internet.
v1.2.0 – Aug 17, 2008 – Added report preview feature.
v1.1.0 – Aug 17, 2008 – Revised report format & added report save feature. Added tool tips to source & destination database text boxes.
v1.0.0 – Aug 14, 2008 -- Initial Release.

Copyright © 2011 by RNA Consulting Services, LLC

K9DUR Software License Agreement

Software written by Ray Andrews, K9DUR, for amateur radio use may be freely copied by any licensed amateur radio operator for their own personal use.

Other than the cost of the distribution media, no fee may be charged for the distribution of the software to any other party or parties.

No commercial use of the software may be made by any party without the express written consent of:

RNA Consulting Services, LLC
Post Office Box 82
West Terre Haute, IN 47885-0082.

Although the software is free, it is not open source. The programming techniques used in the development of the software are proprietary to RNA Consulting Services, LLC. The software may not be reverse engineered or de-compiled for any purpose.

No warranty, expressed or implied, is conveyed for the use of the software or for the installation of the software on any computer.

Copyright © 2011 by RNA Consulting Services, LLC